



1443. Dielectric losses in optically-cracked crystals. S. M. Y. YANG AND D. J. GARDNER. *Nature*, **188**, 60 (No. 4718) (1964). In Random. — Experiments on the dielectric losses in additively coloured KI crystals indicate an increase during excitation by white light, which does not appear due to an increase in conductivity but more probably to a change in the internal stresses in the lattice. In mixed crystals with different lattice parameters the presence of localized internal stresses may be expected, the study of which may elucidate the nature of dielectric losses generally. L. J. O.

537.226 : 540.7 : 519.32

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550530009-3"

SIKORSKY, Yu A.

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пое спортивно-патристическое значение. 1950.  
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Approved for release of  
Central Intelligence Agency International Relations

602

SIKORSKIY, Yu.A.  
BERDINSKIH, I.P.; SIKORSKIY, Yu.A.; KOBLIKOV, A.G.

Wood permittivity. Der.prom.4 no.9:16-17 S '55. (MLRA 8:11)

1. Ukrainskaya ordena Trudovogo Krasnogo Znameni sel'skokhozyay-  
stvennaya akademiya  
(Dielectric heating)

SIKORSKIY, Yu A.

CARD 1 / 1

PA - 1683

SUBJECT USSR / PHYSICS  
AUTHOR SIKORSKIY, JU.A.  
TITLE The Influence of Disturbances of the Crystal Lattice on the Dielectricity Constant of Mineral Salt Crystals.  
PERIODICAL Žurn.techn.fis, 26, fasc.11, 2487 - 2492 (1956)  
Issued: 12 / 1956

Here the influence exercised by the annealing and coloring of mineral salt crystals upon their dielectricity constant  $\epsilon$  is investigated. The crystals were subjected to short-wave irradiation and additively colored in an electric field. Electrolytic coloring in an electric field takes place at high temperature.  $\epsilon$  was determined by measuring the capacity of a disc condenser, in which the crystal to be investigated served as a dielectricum. The generators were arranged according to the transitron scheme.  $\epsilon$  was determined from the formula  $\epsilon = 1 + (4\pi/S) C.d$ . Denotations:  $C = C_1 - C_2$ ,  $C_1$  and  $C_2$  - the capacities of the tuning condenser on the occasion of the filling of this condenser with the substance to be investigated or with air;  $d$  - the thickness of the sample under investigation;  $S$  - the surface area of the condenser discs.

Results: At first the measured values of the dielectricity constant of NaCl - crystals which are annealed on the occasion of thermal coloring and were cooled in paraffin or in the air, where shown together in a table. By such a treatment the dielectricity constant of the crystals is reduced. Furthermore, crystals were colored by the method developed by ARCYBYSEV in an electric field at 700°C and proceeding from a sodium cathode. After coloring the crystals were then rapidly cooled in paraffin in order to attain atomic coloring. The colored crystals with atomic coloring centers have a smaller dielectricity constant than uncolored crystals. The coloring of crystals by X-ray

Zurn.techn.fis, 26, fasc.11, 2487 - 2492 (1956) CARD 2 / 2 PA - 1683

or  $\gamma$ -rays does not change their electricity constant (within the limits of experimental accuracy). In the case of crystals with colloidal centers,  $\epsilon$  is larger than in the case of uncolored crystals.

Summary of results: The dielectricity constant of mineral salt crystals is apparently modified by a modification of the inner tensions in the crystal lattice. The existence of colloidal coloring centers increases the dielectricity constant of the crystals. A rough calculation confirms the assumption that colloidal coloring may be looked upon as the colloides of a metal which are distributed over the crystal lattice. By the existence of coloring centers (obtained by different methods) the dielectricity constant is not changed within the limits of measuring accuracy. The differences found to exist among the values of  $\epsilon$  obtained by different authors may be explained by the difference in the origin of the crystals examined by them.

INSTITUTION:

SOV/81-59-5-14420

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 5, p 31 - 32 (USSR)

AUTHOR: Sikorskiy, Yu.A.

TITLE: A Study of the Effects of Impurities and Dislocations on the Dielectric Constant of Crystals

PERIODICAL: Nauchn. tr. Ukr. s-kh. akad., 1957, Vol 9, pp 447 - 453

ABSTRACT: A drop in the dielectric constant  $\epsilon$  of sodium chloride crystals when annealed, has been observed, which is probably due to a change in the internal stresses of the crystal lattice. The presence of colloidal coloring centers increases the dielectric constant of the crystals. A rough estimate confirms the belief that the colloidal coloring centers can be regarded as metal colloids, imbedded into the crystal lattice. The presence of atomic coloring centers, obtained by various methods, within the accuracy limits of the method, does not change the  $\epsilon$  of the crystal. The differing values of  $\epsilon$ , obtained by different authors, can probably be explained by the differing origin of the

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✓B

SIKORSKIY, Yu. A.

Sikorskiy, Yu. A. [Kyiv, Ukrainskaya sel'skokhozyaystvennaya akademiya (Ukrainian Agricultural Academy)] The Influence of Coloration Nuclei on the Dielectric Constant of Rock Salt Crystals

(The Physics of Dielectrics) Transactions of the All Union Conference on the Physics of Dielectrical Nuclei. Izd-vo AS SSSR, 1953. 245 p. 1000 copies print.

This volume publishes reports presented at the All-Union Conference on the Physics of Dielectrics, held in Dnepropetrovsk in August 1956 sponsored by the "Physics of Dielectrics" laboratory of the Dielectrics, Plastic and Liquid Division of the Institute of Metal Physics of the AS USSR, and the Dielectrophysics Department of the Dnepropetrovsk Physico-Technology Institute (Dnepropetrovsk Institute of Technology).

SOV/139-58-4-4/30

AUTHORS: Sikorskiy, Yu. A., Vertepnaya, G. I. and Krasil'nik, M.G.

TITLE: Permittivity and Energy of the Crystal Lattice  
(Dielektricheskaya pronitsayemost' i energiya  
kristallicheskoy reshetki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika,  
1958, Nr 4, pp 33-36 (USSR)

ABSTRACT: A number of authors have established the influence of mechanical deformation on the optical and electrical properties of crystals. V. I. Khotkevich (Ref 12) and other authors have established that, in the initial stage of plastic deformation, the deformation work is fully transformed into latent deformation energy. The possibility of accumulating energy during deformation was confirmed by experimental data of Walker and Bhattacharya (Ref 13). Investigating the problem of the relation between the lattice energy and the physico-chemical properties of single crystals, Ye. K. Zavadovskaya (Ref 14) established that the lower the polarisation ability of the molecules the higher will be the energy of the crystal lattice. A. A. Vorob'yev and Ye. K. Zavadovskaya (Refs 15, 16) found that with increasing bond energy of

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SOV/139-58-4-4/30

## Permittivity and Energy of the Crystal Lattice

the electrons in the crystal, their forced oscillations decrease and, therefore, the refraction coefficient also decreases. By comparing the results of Khotkevich and Walker with the data of Zavadovskaya and Vorob'yev, the following conclusions can be drawn: the deformation of the crystals brings about an increase of the energy of the crystal lattice, consequently, during deformation, the permittivity of the crystals should decrease. Indeed, Ye. V. Sinyakov and I. A. Itak (Ref 17) have observed a decrease in the spontaneous polarisation during unilateral mechanical compression of a plate made of a ferro-electric. Earlier Vul' established the opposite effect, namely an increase in the permittivity of barium titanate as a result of an increase in the hydrostatic pressure. The contradiction between the effects observed by Sinyakov and Vul' is understandable if the results of Burstein (Ref 9) and Wolf (Ref 8) are compared with the results of Kiyama (Ref 11), taking into consideration views expressed by the authors of this paper. The aim of the here published results was to verify the correctness of the opinions expressed by the authors concerning the influence

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SOV/139-58-4-4/30

**Permittivity and Energy of the Crystal Lattice**

of the plastic deformation caused by unilateral compression on the permittivity in crystals with the simplest lattice structure, i.e. crystals of alkali-haloid salts where the anticipated effect can be observed in the purest form. In their investigations the authors used natural common salt crystals from which specimens of 20 x 20 x 5 mm were cut and, for eliminating internal stresses in the crystal lattice, the specimens were annealed in electric furnace at 500°C for 10 hours and then were slowly cooled in the same furnace. The obtained results can be summarised thus: the plastic deformation brings about a decrease in the permittivity of the investigated common salt crystals and it can be assumed that the observed decrease of the permittivity during deformation is caused by an increase in the energy of the crystal lattice during the

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Permittivity and Energy of the Crystal Lattice SOV/139-58-4-4/30  
deformation. There are 18 references, 12 of which are  
Soviet, 3 German, 3 English.

ASSOCIATIONS: Kiyevskiy politekhnicheskiy institut  
(Kiev Polytechnical Institute) and  
Ukrainskaya sel'skokhozyaystvennaya Akademiya  
(Ukrainian Agricultural Academy)

SUBMJ<sup>M</sup>TED: February 24, 1958

Card 4/4

SIKORSKIY, Yu.A.; VERTEPNAYA, G.I.; KRASIL'NIK, M.G.

Physical properties of melted water. Izv.vys.ucheb.zav.; fiz.  
(MIRA 12:10)  
no.3:12-15 '59.

1. Kiyevskiy politekhnicheskiy institut i Ukrainskaya sel'-  
skokhozyaystvennaya akademiya.  
(Water--Density) (Water--Electric properties)

45006

S/159/62/000/006/012/032  
E194/E435

AUTHORS: Bogdanovich, A.S., Nekrasov, M.M., Sikorskiy, Yu.A.  
Chepurenko, V.G.

TITLE: A study of the electrical properties of solid solutions  
in pseudo ternary systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika,  
no. 6, 1962, 72-76

TEXT: The following pseudo ternary ferroelectrics were studied:  
1) 85% BaTiO<sub>3</sub> + 4% BaSnO<sub>3</sub> + 11% BaZrO<sub>3</sub>; 2) 85% BaTiO<sub>3</sub> + 2% BaSnO<sub>3</sub>  
+ 13% BaZrO<sub>3</sub> and 3) 90% BaTiO<sub>3</sub> + 4% BaSnO<sub>3</sub> + 6% BaZrO<sub>3</sub>. Below  
a critical temperature, ranging from 20°C for (1) to 125°C for (3),  
the conductivity is below 10<sup>-12</sup> ohms·cm<sup>-1</sup>, at higher temperatures  
the conductivity increases rapidly and the presence of an  
inflection point in the curve of logarithm of conductance against  
reciprocal temperature indicates that at high temperatures the  
conductivity is intrinsic and relates to the stoichiometric  
composition whilst at lower temperatures it is extrinsic and  
depends on the divergence from the stoichiometric. The energy of  
activation depends on composition, heat treatment and oxygen  
content. Curves of permittivity ( $\epsilon$ ) as function of temperature

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..., v.vi (after revision)

BUBLEY, R.Ye.; KALABUKHOV, N.P.; SIKORSKIY, Yu.A.

Dielectric constant of alkali metal halide crystals with F and  
V-centers. Izv.vys.ucheb.zav.; fiz. no.3:80-83 '63. (MIRA 16:12)

1. Kiyevskiy politekhnicheskiy institut.

BCGDANOVICH, A.S.; SIKORSKIY, Yu.A.; YURACHKOVSKIY, P.A.

Effect of thermal treatment and plastic deformation on the dielectric losses of KCl-CaCl<sub>2</sub> crystals. *Fiz. tver. tela* 5 no.12:3524-3528 D  
'63. (MIRA 17:2)

1. Kiyevskiy politekhnicheskiy institut.

ACCESSION NR: AR4042156

S/0196/64/000/005/B008/B008

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 5B37

AUTHOR: Bublej, R. Ye.; Kalabukhov, N. P.; Sikorskiy, Yu. A.

TITLE: Dielectric constant of alkali-halide crystals with F and V-centers

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy\*p. 51, 1963, 181-184

TOPIC TAGS: dielectric constant, alkali halide crystal, crystal, lattice point

TRANSLATION: The F-center is considered as a quasiatom of alkaline metal, sitting in a lattice point, near which there is a vacancy of an ion of halide, and the V-center as a quasiatom of halide, replacing one of the 6 negative ions surrounding the vacancy of the alkaline metal. It is assumed that the presence of F- and V-centers should change the  $\epsilon$  of alkali-halide crystals. The presence of an F-center should increase  $\epsilon$  due to the presence of an electron on the outer orbit of an atom of alkaline metal which is connected weaker than electrons of a closed shell. The presence of a V-center should decrease  $\epsilon$ , inasmuch as the binding energy of an

Card 1/2

L 36508-66

EWT(1)/EWP(e)/EWT(m)/EWP(j)/T

IJP(c) GG/RM/ML

SOURCE CODE: UR/0139/66/000/002/0092/0097

ACC NR: AP6013461

AUTHOR: Bogdanovich, A. S.; Kalabukhov, N. P.; Nekrasov, M. M.; Sikorskiy, Yu. A.; E

Chepureko, V. G.

ORG: Kiev Polytechnic Institute (Kiyevskiy politekhnicheskiy institut)

TITLE: Electrostriction of dielectrics

SOURCE: IVUZ. Fizika, no. 2, 1966, 92-97

TOPIC TAGS: dielectric capacitor, dielectric material, dielectric property, electrostriction, electric polarization, electric field

**ABSTRACT:** The purpose of the investigation was to ascertain whether deformation in an electric field and polarization are properties possessed by all dielectrics, and which of these properties plays the dominating role in electrostriction. The tests were made on commercial ceramic dielectrics and on certain technical dielectrics such as rubber, quartz, Plexiglas, Rochelle salt, and ADP. Altogether 166 samples were tested, 88 of which were piezoelectric. The measurement consisted essentially of determining the profile of the sample before and after application of the electric field, and hence the change in sample dimensions, with the aid of a profile gauge (IZP-17) accurate to  $1.0 \times 10^{-4}$  mm at a vertical magnification of 5200. The tests have shown that all the measured dielectrics can be divided into four groups, in which the thickness of the sample (i) decreases or (ii) increases with applied voltage, (iii) reversal of the voltage affects the change, and (iv) at low voltages the thickness first decreases and then with further increase in the field it begins to

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ACC NR: AP6013461

increase. Tables of the relative changes in dimensions are presented. The results confirm the correctness of the assumption that electrostriction and polarization are ~~APPROVED FOR RELEASE: 08/23/2000~~ ~~CIA-RDP86-00513R001550530009-3~~ ~~the major role, and the sign of the change of the electrostriction rating of a capacitor under the influence of electrostriction, by applying to the capacitor a dc field superimposed on a high-frequency ( $10^7$  cps) field. These tests have shown that with increasing applied additional dc field, the capacitance increases first and then reaches saturation or even decreases. Repetition of the tests under different conditions has shown that, other conditions being equal, the capacitance and the sign of the change depend on the composition of the ceramic and the technology of its preparation. It is also shown that the change in the capacitance is due essentially to polarization and that the effect of electrostriction is negligible.~~ Orig. art. has: 5 figures, 2 formulas, and 2 tables.

Orig. art. has: 5 figures, 2 formulas, and 2 tables.  
 SUB CODE: 20, 09/ SUBM DATE: 01Jul64/ ORIG REF: 002/ OTH REF: 003

Card 2/2 MLP

KORCHAGIN, M.V.; SIKORYA, I.M.

Investigating the dependence of the migration of acid dyes in  
wool on their affinity. Izv.vys.ucheb.zav.; tekhn.tekst.prom.  
no.2:119-124 '63. (MIRA 16:6)

1. Moskovskiy tekstil'nyy institut.  
(Dyes and dyeing--Wool)

SIKOS, Arpad, dr.; JELINEK, Istvan, dr.

Perforation of duodenal ulcer into the abdominal cavity after  
gastric resection in ulcer. Orv.hetil. 102 no.9:421-423 26 P'61.

l. Fovarosi IX. ker. Tanacs VB. Gyali-uti Korhaza, Sebeszeti  
Osztaly.

(GASTRECTOMY compl)  
(PEPTIC ULCER PERFORATION)

SIKOSEK, B.

SIKOSEK, B.

Yugoslavia (430)

Science

Some findings on Actaeonella of Senonian limestone near the village  
of Galiste, the Crna Reka River region, in Macedonia. p. 133. Trudovi.  
No. 2, 1951.

East European Accessions List. Library of Congress Vol. 2, nos. 1 & 2,  
Jan-Feb, 1953, UNCLASSIFIED).

SIKOSEK, B.

"Stratigraphic and Tectonic Interrelations in the Area between Mali Izvor,  
Novo Korito, and "adibogaz in Eastern Serbia" p. 145  
(ZBORN K RADOVA, Vol. 22, no. 4, 1952, Beograd, Yugoslavia)

SO: Monthly List of East European Acquisitions, Library of Congress, Vol. 2,  
no. 10, October, 1953, Unclassified

Sikesek, D.

YUGO

2454. DEVELOPMENT OF POWER AT JEHENICE IRONWORKS. Slikšek, D. (Nova  
Proizvod. (Nnw Industr., Lubljana, Sept. 1954, vol. 5, (3-4), 264-271.) A  
description is given of the development of hydro and steam power plant and of  
supplies of oxygen, acetylene and water. (L.)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3

MERKULOV, N. Ya. and SIKOV, A. I.

"The adoption of VCM-2m coal combine," Mechanization of Labor Consuming and Heavy Work, 1951.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3"

SIKOV, Aleksey Ivanovich, SHEVCHENKO, Georgiy Yefimovich; FAYBISOVICH, I.L.,  
~~otvetstvennyy redaktor~~; NADEYNSKAYA, A.A., tekhnicheskiy redaktor

[K-14 cutter-loader] Ugol'nyi kombain K-14. Moskva, Ugletekhizdat,  
1956. 46 p.  
(Coal mining machinery)

SIKOV, Aleksey Ivanovich; KLYUCHEV, Mikhail Vasil'yevich; LADYGIN, A.M.,  
otv.red.; SHOROKHOVA, A.V., red.izd-va; NADEINSKAYA, A.A.,  
tekhn.red.; LOMILINA, L.N., tekhn.red.

[K-56 coal combine] Ugol'nyi kombain K-56. Moskva, Ugletekhnidat,  
1959. 60 p.  
(Coal mining machinery)

SIKOV, A.I.

The K-56m combine. Biul.tekh.-ekon.inform. no.4:3-4 '60.  
(MIREA 13:11)

(Coal mining machinery)

SORS, K.; HOLCOVA, M.; POLASEK, J.; SIKOVA, L.

Our experience with a modified Swan-Wahlgren test. Cesk. oftal.  
21 no.6:503-508 N '65.

1. Ustav pro napravu vad zraku v Machninc (vedouci lekar MUDr.  
K. Sors) a Vyzkumny ustav zvukove, obrazove a reprodukcní techniky  
v Praze (reditel RNDr. M. Jahoda).

SIKOVA, L. I.

Cand Med Sci - (diss) "Clinical characteristics of chronic hepatitis and cirrhosis of the liver of opistorkhoznaya etiology, their treatment and prophylaxis." Omsk, 1961. 19 pp; (Novosibirsk State Med Inst); 250 copies; price not given; (KL, 10-61 sup, 226)

SIKOVEC, R.

"Knowledge of plans and drawings" by Karl Neubert and Walter Stein. Vol. 2. Reviewed by R. Sikovc. Rud met zbor no.1: 59-60 '62.

SIKOVEC, R.

"Fundamentals of surveying" by Karl Neubert. Vol. 1. Reviewed  
by R. Sikovec. Rud met zbor nc.l:60 '62.

SIKOVEC, R.

"Seismic orientation of underground areas" by Rudolf Straubel. Rud met  
zbor no.2;186 '62.

SIKOVEC, R.

"Mechanical aids for the construction of perspective and anaglyphic pictures, and their application in mining (with map attached)" by Hans-Joachim Probst. Reviewed by R. Sikovec. Rud met zbor no.2: 186 '62.

CZECHOSLOVAKIA/Farm Animals - Cattle.

7-3

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30940

Author : Sikra Jan

Inst : -

Title : The Pinzgau Cattle - the Basic Breed of the Cattle of the Foothill and Mountain Regions of Slovakia.  
(Pintsgauskiy skot - osnovnaya poroda krupnogo rogovogo skota predgornykh i gornykh zon Slovakii).

Orig Pub : Nas chov, 1957, No 16, 439-441.

Abstract : On the 750,000 ha. of the foothill and mountain pastures of Slovakia graze about 300,000 heads of the Pinzgau cattle (about 30% of the number of this breed in the world). In certain regions, for each 100 ha. of pasture, there are 69 heads of cattle; their average body weight is 560 kg., and the milk yield during a lactation is 3,200-5,300 kg. with a fat content of 3.8%. It is aimed to increase the average milk yield up to 4,500 kg., with a fat content of 4%.

Card 1/1

- 31 -

SIKSAI, G.

"On the Questions of Railroad Sleepers of Prestressed-Reinforced Concrete."

p. 1 (Stroitelstvo, Vol. 5, No. 1, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11,  
Nov. 1958

GAJDEYEV, A.S.; GOVOROV, A.M.; OSINTINSKIY, G.M.; RAKIVNENKO, A.N.; SIZOV, I.V.;  
SIKSIN, V.S.

D-D reactions in the 100-1000 KeV deuteron energy range. Atom. energ.  
suppl. no.5:26-47 '57. (MIRA 11:2)  
(Nuclear reactions) (Deuterons)

ACC NR: AP6032407

SOURCE CODE: UR/0089/66/021/003/0208/0209

AUTHOR: Korol', V. M.; Siksin, V. S.

ORG: none

TITLE: Source of lithium for electrostatic generator

SOURCE: Atomnaya energiya, v. 21, no. 3, 1966, 208-209

TOPIC TAGS: ion source, ion emission, ion beam focusing, ion acceleration,  
ELECTROSTATIC GENERATOR, LITHIUM, POSITIVE ION

ABSTRACT: A source of accelerated positive lithium ions for use in studying nuclear reactions is described. The source incorporates a focusing lens consisting of three electrodes and a housing. The emitter assembly, contained in the housing, consists of seven tungsten filaments 0.3—0.4 mm in diameter, coated with lithium alumino-silicate, and a molybdenum diaphragm. A part of an EG-2.5 accelerator tube with seven electrodes was used as an accelerator tube. The device was tested at 10 kv on the accelerating electrode, while the accelerating voltage on the EG-2.5 tube was 60 kv. Test results demonstrate that the current and focusing of the ion beam depends considerably on the diameter of the diaphragm and the shape of the accelerating electrode. An ion current of 370  $\mu$ amp was measured using a Faraday cylinder. Orig. art. has: 2 figures.

SUB CODE:20,10/ SUBM DATE: 18Feb66/ ORIG REF: 002/ OTH REF: 001/

Card 1/1

UDC: 539.103

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3

SIKSTEL', T. A.

"Discovery of the Gigantopteris - a Paleozoic Flora - in Fergana," Dok. AN, 66, No. 5,  
1949.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3"

SIKSTEL', T.A.; AYNI, S.. Glavnyy red.: GARRIS, M., red.; KOTSABEKO, Ye.,  
red.; FROLOV, P., tekhn.red.

[Jurassic flora of the Pan-Yagnob coal beds.] IUrskaya flora  
kamenougol'nogo mestorozhdeniya Pan-Yagnob. Stalinabad, Izd-vo  
Akad.nauk Tadzh.SSR, 1952. 68 p. (Akademija nauk Tadzhiskoi  
SSR. Stalinabad, Trudy, vol. 2). (MIRA 12:11)  
(Ayni District--Paleobotany)

SIKSTEL', T.A.

Materials for the study of the Jurassic flora in the Angren coal  
deposit. Trudy Inst.geol. AN Uz. SSR no.7:41-68 '53.  
(MIRA 12:1)

(Angren Basin--Paleobotany)

SIKSTEL', T. A.

"Data on the Stratigraphy of the Jurassic Strata of the Carboniferous Deposits of Kok-Yangak"  
Tr. In-ta Geologii AN Uz. SSR, 1953, No 7, 69-111.

The coal-bearing clay-argillite layers of the Kok-Yangak are divided by batches of conglomerates into six strata (I, II, III, IIIa, IV, V). The complex tectonic structure of the deposits required the development of procedures for discriminating the various strata having similar lithological composition. (RZhGeol, No 3, 1954)

SO: W-31187, 8 Mar 55

SIMSTEL', T. A.

"Data on the Stratigraphy of the Jurassic Coal-Bearing Deposits of Yagman in  
Turkmenian SSR"  
Tr. In-ta Geologii AN Uz. SSR, 1953, No 7, 117-153

From the coal bearing Jurassic deposits of Yagman are described and represented  
more than 20 species of fossil plants, including one new species. A con-  
clusive solution of the problem of the age of the Yagman flora must await  
additional investigations into the interrelationships among the strata con-  
taining the flora and fauna. (RZhGeol, No 3, 1954)

SO: W-31187, 8 Mar 55

SIKSTEL', T. A.

"Certain Data on the Climatic Zones of the Jurassic Period".  
Trudy Sredneaz. un-ta, Geol. n., book 5, pp 71-74, 1954.

A close study of the Jurassic flora of Central Asia reveals gradual variation of its composition from south to north due to climatic zonal character. This variation is expressed in gradual decrease in the quantity of cycadophytes and increase of conifers and gingkoes along the direction toward the south. In the Gissar Mountain Range the cycadophytes amount to 50% of the total composition of the flora; in South Fergana it is 8%. Correspondingly the content of conifers increases from 8 to 20%, and the gingkoes increase from 6-8 to 28%. However, the Jurassic climate of Central Asia cannot be considered tropical, since all the studied trees possess clearly expressed annual rings. (RZhGeol, No 8, 1955)

SO: Sum No 884, 9 Apr 1956

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3

SIKSTEL', T.A.

Data on climatic zones of the Jurassic period. Trudy SAGU no.52:  
71-74 '54. (MLRA 10:5)  
(Paleoclimatology)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3"

ZHDANOV, A. A.

"Stratigraphy and Flora of the Nadyzinskaya Stratum (Southern Terekhans)." Dr Geol-min Sci, Leningrad Order of Lenin State University A. A. Zhdanov, Leningrad, 1955. (KL, No 10, Jar 55)

SC: Sum. No. 670, 27 Sep 51--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

POSOKHOVA,M.M.; SINTEL',T.A.

Some comments of Quaternary flora of the Turkestan Range. Biul.Kom.  
chetv.per. no.20:84-88 '55. (MLRA 8:11)  
(Turkestan Range--Paleobotany)

15-57-2-1375  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 2,  
p 28 (USSR)

AUTHOR: Sikstel', T. A.

TITLE: An Interesting Reconstruction of a Fossil Plant (Ob  
odnoy interesnoy rekonsruktsii iskopayemogo rasteniya)

PERIODICAL: Tr. Sredneaz. un-ta, 1956, Nr 82, pp 113-114

ABSTRACT: An impression of a part of an apical shoot with leaves  
and carpellate cones--named Pentoxylon nodosum by the  
author--was found in the Madygenskaya series ( $P_2$  --  $T_1$ )  
in South Fergana area. In spite of minor differences,  
this shoot reveals a striking likeness to the recon-  
structed Pentoxylon sahnii Sriv. from the Jurassic  
deposits of India, made by Sahni (Sahni B., Botanical  
Gazette, 1948, 110, Nr 1) on the basis of isolated  
leaf remnants, trunk fragments, and carpellate cones.  
The new find of this Pentoxyleae representative shows  
the protracted existence of this group (Permotriassic  
to Jurassic) and allows us to assume a relationship

Card 1/2

15-57-4-4098

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,  
p 6 (USSR)

AUTHORS: Sikstel', T. A., Yaskovich, B. V.

TITLE: The Characteristics of the Cambrian Rocks of Southern  
Fergana (K kharakteristika kembriyskikh otlozheniy  
Yuzhnay Fergany)

PERIODICAL: Tr. Sredneaz. un-ta, 1956, Nr 82, pp 115-118

ABSTRACT: In addition to the known data, the authors have  
established the fact that Cambrian deposits are  
widespread in the border area of Madygen, where they  
extend for 20 km from the source of Dzhida-Bulak  
(Shurab region) westward to the canyon of Madygen.  
The Cambrian contains a series of cherty, oolitic, and  
algal-nodular limestones containing the Hormogoneae-  
Corbularia conglutinata Vologdin and lying on top of a  
series of sandstones, diabases, and porphyrites, with  
lenses of limestone containing remains of brittle  
inarticulate brachiopod valves. The section is topped

Card 1/2

15-57-4-4098

The Characteristics of the Cambrian Rocks (Cont.)

by a ferruginous-siliceous breccia. The thickness of the Cambrian  
is measured in hundreds of meters.

A. I. S.

Card 2/2

Sikstel', T.A.

11-10-20/23

AUTHOR: Sikstel', T.A.TITLE: Stratigraphical Dictionary of the USSR (O "Stratigraficheskoye  
slovare SSSR")PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957.  
# 10, p 108-110 (USSR)ABSTRACT: Soviet geologists expected from the new edition of the USSR  
stratigraphical dictionary the following improvements:

1. Systematization of stratigraphic terms.
2. Abolishment of existing unjustifiable synonyms.
3. Establishment of exact characteristics of stratigraphic  
terms and stratigraphic categories.

4. Very exact bibliographical references.  
The author regrets that none of these expectations was met in  
the new edition of the dictionary, and draws attention to  
arbitrary subdivisioning of geological strata. The author is  
of the opinion that the compilation of the dictionary has been  
carried out in a wrong way, and the territorial administrations,  
geologic institutes of the various republics and other organ-  
izations associated with the subject have not been approached  
for cooperation.

Card 1/2

Stratigraphical Dictionary of the USSR

11-10-20/23

SUBMITTED: 12 March 1957

AVAILABLE: Library of Congress

Card 2/2

3(5)

SOV/11-59-5-11/14

AUTHOR: Sikstel', T.A.

TITLE: On the Stratigraphical Scheme for the Triassic  
Continental Deposits of Eastern Ural (O strati-  
graficheskoy skheme dlya kontinental'nykh otlozheniy  
Triasa Vostochnogo Urala)

PERIODICAL: Izvestiya Akademii nauk, SSSR Seriya geologiches-  
kaya, 1959, Nr 5, pp 120-122 (USSR)

ABSTRACT: In connection with the article by A.I. Turutanova-  
Ketova "Floristic characteristics of some Lower-  
Mesozoic productive strata of the eastern slope  
of the Middle Ural", published in Nr 5, vol. XLIII,  
1958 of the "Botanicheskiy zhurnal", the author  
finds that some of the statements are erroneous  
and some ill-founded. There are 3 Soviet references.

Card 1/1

SIKSTEL', T.A.; YASKOVICH, B.V.

New data on the age of the Akchinskaya sedimentary-volcanic  
series of the Kurama Range. Trudy Uz.geol.upr. no.1:25-29  
'60. (MIRA 14:8)  
(Kurama Range--Geological time)

SIKSTEL', T.A.

Presence of upper Permian continental sediments in southern  
Fergana. Trudy Uz.geol.upr. no.1:29-38 '60. (MIRA 14:8)  
(Fergana--Geology, Stratigraphic)

SIMSTEL<sup>1</sup>, T.A.

Characteristics of upper Triassic continental sediments in  
Central Asia. Trudy Uz.geol.upr. no.1:38-46 '60. (MIRA 14:8)  
(Soviet Central Asia--Geology, Stratigraphic)

SIKSTEL', T.A.

Members of Gigantopteridae and some associated plants from the  
Madygen series of Fergana. Paleont. zhur. no.1:151-158 '61.  
(MIRA 14:8)

1. Glavgeologiya UzbSSR, Paleontologo-stratigraficheskaya  
partiya.  
(Fergana—Pteridospermae)

GOMOLITSKIY, N. P.; KURBATOV, V. V.; SIKSTEL', T. A.

New materials characterizing the genus *Pachypteris* (Pteridospesmaphyta). Paleont. zhur. no.2:166-167 '62.  
(MIRA 15:10)

1. Glavnaya upravleniya geologii i okhrany nedor Uzbekskoy  
SSSR, Tashkent.

(Pteridespermae)

SIKTANC, Josef, dr.; BELOHLAVEK, Miloslav

Problems of personal material interest in railroad transportation.  
Doprava no.4:278-283 '64.

APPROVED FOR RELEASE: 08/23/2000 Mineral Nutrition. I-3  
CZECHOSLOVAKIA, August 1964 CIA-RDP86-00513R001550530009-3"

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43756

Author : Znk, J.; Sikula, J.

Inst : Not given

Title : The Effect of Beta-Indole Acetic Acid on the Development of Barley and the Microflora About Its Roots.

Orig Pub : Sbor. Ceskosl. akad. zemed. ved. Rostl. výroba, 1956, 29,  
No. 9-10, 886-889.

Abstract : Barley was raised in growing vessels at the Superior Agricultural School in Brno. The barley yield grew under the influence of 0.5% indole acetic acid, since the N content in the soil scarcely changed. Indole acetic acid applied to the plants many times had a more advantageous effect on an increase in yield than when applied only once. The authors suppose that an increase in yield results from strengthened development of the microflora in the rhizosphere, especially nitrobacter. -- N. I. Bidzilya.

SIKULA, Jaromir

Chemical Abt.  
Vol. 48  
Apr. 10, 1954  
Soils and Fertilizers

(3) ✓  
**Barocalcinometer.** Jaromír Sikula (Ústřední kontrol. a zkušeb. ústav zem. a VSZ, Brno, Czech.). *Skript k práci. Akad. Zeměděl. Vyd. 26A, 207-16(1953)* (English summary).—Construction and use of a new type of barocalcinometer (B), especially designed for practical and theoretical agricultural research, are described. It is based on the principle of direct measurement of the pressure in the reaction vessel. Bourdon's metal pressure gage with a caliber of 0 to 1 atm. is used, with an accuracy of  $\pm 0.01$  atm. The scale of the pressure gage is replaced by 4 scales for direct measurement of carbonates. It has 2 different constructions, for field-work and for lab. There are two tables for barometric and thermal correctives. The accuracy is  $\pm 0.01\%$  CaCO<sub>3</sub>.  
Jan Micks

L 31143-66 EWP(1) SCTB DD  
ACC NR: AP6011464

SOURCE CODE: CZ/0077/66/000/004/0174/0177

AUTHOR: Sikula, J. (Doctor of natural sciences; Engineer; Brno) 3/  
8

ORG: none

TITLE: The hygiene of vegetable foodstuffs during refrigeration and freezing 2

SOURCE: Veterinarstvi, no. 4, 1966, 174-177

TOPIC TAGS: refrigeration, freezing, food technology, food sanitation, plant physiology, plant morphology, veterinary medicine, cell physiology

ABSTRACT: Some fundamental theoretical principles which explain the effects of low temperatures on the plant cell, plant tissue, and the plant as a whole are discussed. The mechanical, biochemical, and microbiological changes occurring in raw vegetables as a result of any preservation, including refrigeration and freezing, are presented. The vegetables and fruits most commonly frozen in Czechoslovakia are enumerated, and the hygienic and technical specifications to be satisfied prior to and during freezing and storage are given. The latter were established by the Czechoslovak government and are intended to minimize defects commonly found in frozen vegetables. It is pointed out that

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ACC NR: AP6011464

the actual level of refrigeration and deep-freezing technology is far from ideal, i.e., rapid cooling to low target temperatures to prevent the formation of aqueous microcrystals liberated from the cell, thus avoiding dehydration of the plant cell and forming instead a homogeneous whole of vitreous, glass-like structure. The importance of a knowledge of food preservation techniques to veterinary medicine is [11] emphasized.

SUB CODE: 02, 06/ SUBM DATE: none/ ATD PRESS: 4239

Card 2/2 LC

CHURA, A.J.; SIKULA, L.; SITAY, S.; PRONAY, K.

Effect of streptomycin in acute rheumatism in children. Lek. listy, Brno  
6 no.21:648-654 contd. 1 Nov 51. (CLML 21:4)

*SIKULA, L.*  
CHURA, A.J.; SIKULA, L.; SITAY, S.; PROMAY, K.

Effect of streptomycin on acute rheumatism in children. Lek listy, Brno  
(CLML 21:4)  
6 no.22:683-685 concl. 15 Nov 51.

CHURA, A.J.; SIKULA, L.; GETLIK, A.; OPOLDUS, J.

Virocytes and cytoplasmic inclusion in acute infectious rheumatism  
and in other infectious diseases in children. Cas. lek. cesk. 92 no.15:  
390-398 10 Apr 1953. (CIML 24:4)

1. Of the Pediatric Department of OUHZ (Head--Prof. A. J. Chura, M.D.),  
Trencin and of the Pediatric Rheumatologic Department (Head--L. Sikula,  
M. D.) of the Therapeutic Institute in Trencianske Teplice.

SIEMIA, •

On reactivity of the body to the streptokinase test in rheumatic patients and patients with chronic respiratory infections. Fysiat.  
magazin 43 no. 2/1972 p. 165

• Reaktivita těla na streptokinázový test v rheumaticech a pacientech s chronickými respiračními infekcemi. Fysiat.  
magazin 43 no. 2/1972 p. 165

SIKULA, M., inz.; SIMUNEK, S., promovany ekonom

Economic results of rotary cement kilns. Stavivo 42 no.1:  
6-8 '64.

1. Keramoprojekt, Brno.

SI KULOVÁ L. Zdravotní péče o zdravotnictví pracujícího lidu a zdravotní péče o pracujícího lidu v průmyslu  
Práce Zdravotník Revue, Praha 1950 25/4 (83-84)

In Czechoslovakia, there are three institutions concerned with the care of the health of industrial workers: industrial physicians, industrial health inspections and Institutes of Occupational Medicine. The industrial physician carries out both prevention and treatment. In the curative service, the out-patient department of the industrial physician is the out-patient department of the National Health Insurance. The institutes of occupational medicine are operative, scientific and research centres for the questions of occupational diseases and the hygiene of the workshops. The industrial health inspection completes the care through its executive power and is a link between the industrial physician and the Institute of Occupational Medicine. The author deals in her paper with some shortcomings of these three sections and makes suggestions for their improvement.

Rejsek - Prague

SO: Medical Microbiology & Hygiene Section IV, Vol 3 , No 7-12

ZAYTSEV, A.; SIKUL'SKIY, I.; SKOBEL'KIN, I.; USTENKO, F.; YEGOROV, V.; ORLOV,  
A.; SEMENOV, S.

Free the state Bank from nonbanking functions. Den. i kred. 16 no.1:  
51-55 Ja '58. (MIRA 11:3)  
(Banks and banking)

SIKUN, G.T.; IVASHKEVICH, V.P.

Automatic control of the die stamping of contactors. Kuz.-  
shtam. preizv. 5 no.9:45-47 S '63. (MIRA 16:11)

SIKUNOVA, L.G., az orvostudomanyok kandidatusa (Szovjetunio)

Revival of man from the state of clinical death. Elovilag 7  
no.2-43-50 Mr-Ap '62.

DYADECHKO, N.P., kand.biolog.nauk; SIKURA, A.I., kand.biolog.nauk

Entobacterin in the control of the fall webworm. Zashch. rast. ot  
vred. i bol. 6 no.7:47 Jl '61. (MIRA 16:5)

1. Ukrainskiy institut zashchity rasteniy, Kiyev.  
(Fall webworm--Biological control)

SIKURA, A.I.

Distribution of the fall webworm by zones and habitats of  
Transcarpathia. Vop. ekol. 7:164-165 '62.  
(MIRA 16:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut zashchity  
rasteniy, Kiyev i Zakarpatskaya karantinnaya laboratoriya,  
Ushgorod.

(Transcarpathia--Fall webworm)

TELENGA, N.A., doktor biolog. nauk; SIKURA, A.I., kand. biolog. nauk;  
DULO, V.Yu.; SMETNIK, A.I.

Using beauverin with DDT for controlling the Colorado beetle.  
Zashch. rast. ot vred. i bol. 8 no.4:48-49 Ap '63. (MIRA 16:10)

1. Nachal'nik Zakarpatskoy karantinnoy inspeksii (for Dulo).
2. Direktor Zakarpatskoy oblastnoy karantinnoy laboratorii (for Smetnik).  
(Ukraine—Potato beetle—Biological control)  
(Beauveria) (DDT (Insecticide))

SIKURA, A. I., Cand Biol Sci -- (diss) "Entomophage and diseases of the American white butterfly (*Hyphantria cunea* Drury) in the Transcarpathians." Kiev, 1960. 18 pp; (Ministry of Agriculture Ukrainian SSR, Ukrainian Agricultural Sciences Academy); 150 copies; price not given; (KL, 17-60, 148)

SIKURA, A. I.

0-3

USSR/Special and General Zoology - Insects.

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 69892

Author : Fasulati, K.K., Sikura, A.I.

Inst : Title : The Ecological Survey of the Transkarpatian Orchard Pests

Orig Pub : Nauch. zap. Uzhgorodsk. un-ta, 1956, 16, 67-92

Abstract : The transcarpathian orchards are inhabited by the representatives of all orders of insects, but the beetles and scale insects are most wide-spread. The most dangerous pest is the Californian scale insect. The damage caused by it surpasses in number the new plantings in the area of infestation. The apple damage is up to 90 percent of its crop. The plum damage is up to 50 percent. Aphids, sawflies and moths are among the dangerous pests. The species and their noxiousness differ in various zones of transcarpatia which should be taken into consideration in the measures of prophylaxis. For example the

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USSR/Special and General Zoology - Insects.

0-3

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 69892

Californian scale insect, blood aphid, the pear-bug, and the large pear snout beetle, is not found at all in the mountain valleys. The largest number of species of insects is found on the apple-tree (99); then on the pear-tree (69); plum- (76); cherry- (47) etc. On the fruit trees of transcapatia there are 162 species of insects and 4 species of ticks noted; specialized pests -68 species. Many of the noxious species of overland pests are not wide-spread in the conditions of transcapatia and are of no practical significance; among them are the long-horned beetles; snout beetle; the plum snout beetle, and the large pear snout beetle.

Card 2/2

- 48 -

*SIKURA, A. I.*

21-6-16/22

AUTHOR:

Sikura, A.I. (A.Y.)

TITLE:

On Muscardinose Infection in Chrysalides of the American White Butterfly (Hyphantria cunea Drury) (O myuskardinoznoy infektsii kukolok amerikanskoy beloy babochki)

PERIODICAL:

Dopovidi Akademii Nauk Ukrains'koi RSR, 1957, No 6, pp 598-601 (USSR)

ABSTRACT:

The article presents the results of an investigation of muscardinosis in chrysalides of the American white butterfly on artificial infection under conditions of various humidities and at a temperature of 19 to 20° C. The pathological changes progressing in the chrysalis organism during the process of disease development were studied on hemolymph smears stained by Giemsa's method. A sharp increase in the phagocyte quantity is observed after a muscardinous infection, followed by the death of the chrysalides which is especially pronounced at 100% humidity. The application of muscardine infection for fighting the American white butterflies deserves a definite attention, and it is necessary to develop methods for its practical application.

The article contains 1 photo, 1 graph, 1 table and 5 references, of which 4 are Slavic and 1 is Hungarian.

Card 1/2

21-6-16/22

On Muscardinose Infection in Chrysalides of the American White Butterfly  
ASSOCIATION: Ukrainian Scientific Research Institute for Plant Protection  
of the Ukrainian Academy of Agricultural Sciences (Ukrains'kyy  
naukovo-doslidnyy instytut zakhystu roslyn UASHN)

PRESENTED: By V.G. (V.H.) Drobotko, Member of the AN Ukrainian SSR

SUBMITTED: 23 April 1957

AVAILABLE: Library of Congress

Card 2/2

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3

SZIKURA

BORHIDI, Attila, Dr. (Budapest); SZIKURA, J. J. (Kiev)

The Yailia Mountains and their flora. Term tud kozl 5 (93) no.3:  
117-119 Mr. '62.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3"

SIKURA, L.V.

Forecasting the time of the occurrence of individual developmental stages of the Colorado beetle. Vop. ekol. 7:163 '62. (MIRA 16:5)  
1. Ukrainskiy nauchno-issledovatel'skiy institut zashchity rasteniy,  
Kiyev.  
(Transcarpathia—Potato beetle)

SIKURA, L.V.

Methods for forecasting the time of the development of individual  
phases of the Colorado beetle (*Leptinotarsa decemlineata* Say).  
Zool. zhur. 42 no.7:1041-1044 '63. (MIRA 17:2)

1. Ukrainian Research Institute of Plant Protection, Kiev.

GOSHTYALEK, Z. [Hoštalek, Z.]; GEROL'D, M. [Herold, M.]; SIKITA, B. [Sikyta, B.];  
NECHASEK, Ya. [Nečasek, J.]

Replacement of saccharose with starch in the culture medium for  
the biosynthesis of chlortetracycline. Antibiotiki 4 no.3:  
8-12 My-Je '59.

(MIRA 12:9)

1. Nauchno-issledovatel'skiy institut antibiotikov, Chekhoslovakiya.  
(CHLORTETRACYCLINE, prep. of  
substitution of saccharose with starch in  
culture medium (Rus))

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3

SIKYTA, Bohumil

Continuous cultivation of *Streptomyces aureofaciens*. Rozpravy  
mat CSAV '74 no. 6:1-61 '64.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550530009-3"

SIKYTA, Bogumil [Sikyta, Bohumil]

Semicontinuous biosynthesis of streptomycin and oxytetracycline.  
(MIRA 18:9)  
Antibiotiki 10 no.8:6'5-678 Ag '65.

I. Nauchno-issledovatel'skiy institut antibiotikov, Rostoki  
pod Pragoy, Chekhoslovakija.

L 27128-66 EWT(1)/T JK

ACC NR: AF6017122

SOURCE CODE: UR/0297/65/010/008/0675/0678

AUTHOR: Sikyta, Bogumil Sikita, B.

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B

ORG: Scientific Research Institute of Antibiotics, Roztoky (Nauchno-issledovatel'skiy  
institut antibiotikov).

TITLE: Semicontinuous biosynthesis of streptomycin and oxytetracycline

b

SOURCE: Antibiotiki, v. 10, no. 8, 1965, 675-678

TOPIC TAGS: streptomycin, tetracycline, biosynthesis, microbiology

ABSTRACT: The use of a semicontinuous method for biosynthesis of the antibiotics streptomycin and oxytetracycline is examined in the article. In the experiments the strains Str. griseus and Str. rimosus from collections of the Scientific Research Institute of Antibiotics in Roztoki pod Prague were used. These strains were employed in the biosynthesis of streptomycin and oxytetracycline on a production scale. The experiments were carried out in laboratory fermentors (working volume — 10 liters) made of stainless steel. Biosynthesis of streptomycin was performed by mixing at 400 rpm and aeration (one volume of air per volume of cultural fluid per minute). The rate of oxygen transport was 1.5 ml O<sub>2</sub>/ml/hour. Biosynthesis of oxytetracycline was also carried out in mixers at 300 rpm and with aeration of 0.5 volume of air. Cultivation in both cases was carried out at 28 °C. The material for inoculation into the fermentors (vegetative mycalium) was ob-

UDC: 615.779.931-012

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L 27128-66

ACC NR: AP6017122

tained by cultivation on media of the same composition, using rockers of reciprocating motion. After placing the nutritive medium in the fermentors, the cultivation process lasted for 39 - 43 hours under the method of single-stage fermentation. During this period half of the nutritive substances contained in the culture fluid were assimilated. Then, the first exchange of culture fluid was carried out: at first part of the cultural fluid was poured off, and then an equivalent volume of fresh sterile nutritive medium was poured into the fermentor from a reserve reservoir. The fresh nutritive medium added was of the same composition as the original nutritive medium. In the biosynthesis of streptomycin in which the single stage fermentation method was used, streptomycin formation attained a level of 2,200 - 2,500 units/ml when cultivated for 120 hours. With replacement of one volume of culture fluid during 180 or 190 hours of fermentation using the semicontinuous method, practically identical streptomycin formation results were obtained, while with replacement of a single volume of culture fluid during the course of 60 hours, the antibiotic formed was considerably less. In the single-stage method, fermentation lasted 120 hours, and the mean biosynthesis rate corresponded to the formation of streptomycin in the amount of 18 - 20 units/ml/hour; under the semicontinuous method streptomycin formed during the same period rose to 293 - 333 units/ml. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 10Nov 64 / ORIG REF:001 / OTH REF: 013

Card 2/2 N

KARPISEK, M.; SIL, K.

Treatment of water from the Ohre River in precipitators with  
flake cloud. Vodni hosp 14 no. 1:29-30 '64.  
1. Okresni vodohospodarska sprava, Karlovy Vary.

SILA, B.

Selenium as an inhibitor in the process of autoxidation of  $\beta$ -pinene. p. 63

SYLWAN. (Wydzial Nauk Rolniczych i Lesnych Polskiej Akademii Nauk i Polskie Towarzystwo Lesne) Warszawa, Poland (Journal on forestry issued by the Section of Agricultural and Forestry Sciences, Polish Academy of Sciences; and the Polish Society of Forestry; with English and Russian summaries. Includes supplements; Biuletyn Instytutu Badawczego Lesnictwa, bulletin of the Forest Research Institute; Biuletyn Instytutu Technologii Drewna, bulletin of the Institute of Wood Technology; Przeglad Dokumentacyjny Drzewnictwa, documentation of the Institute of Wood Technology; and Przeglad Dokumentacyjny Lesnictwa, documentation of the Forest Research Institute. Monthly )  
Vol. 191, no. 2, Feb. 1957

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959  
Uncl.

G-3

COUNTRY : Poland  
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No.

75098

AUTHOR : Sila, E.

JOURNAL : not given

TITLE : On the Products from the Autoxidation of Tar  
Acids from Picea excelsa L.

ORIG. PUB. : Roczniki Chem., 32, No 6, 1405-1407 (1958)

ABSTRACT : When dry wood from Picea excelsa L. spruce is heated, a product,  $C_{11}H_{20}O_7$ , decomp temp 207-207.5°, is obtained: the product is soluble in water and exhibits the characteristics of organic acids. Molecular weight 390.0 and 360.8 (theoretical value 360.35). Acid number 320.7 and 311.0 (theoretical value 311.3). The product is insoluble in petroleum ether, gasoline,  $C_6H_6$ ,  $CCl_4$ , and cyclohexane, and readily soluble in ether, acetone, and alcohols. The product does

CARD: 1/2

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A new catalytic synthesis of coumarone. Roczn. chemii 35 no. 5: 1519-1522  
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6

9. The action of adrenaline and insulin on blood sugar during increased metabolism, hyperthermia and hypo- and hyperfunctioning of the thyroid gland. V. I. Sla.  
*J. Physiol.* (U. S. S. R.) 25, 540 (in German, 540) (1930).—During increased metabolism brought on by injections of 5-10 mg./kg. body wt. of dinitrophenol (I) into rabbits, the action of adrenaline (II) (0.1 mg./kg.) on blood sugar decreases while that of insulin (III) increases. The effect is stronger when the doses of I are increased to 15-20 mg./kg. and the temp. is increased, leading frequently to hypoglycemic shock in the case of III. Hypo- and hyperfunctioning of the thyroid glands reduce the effect of II on blood sugar. Hyperfunctioning increases the effect of III, while extirpation of the thyroid has little effect. S. A. Karjala

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Mbr., Chair Pharmacology, 1st Med. Inst., -1939-1941-. Mbr., Dept. Pharmacology,  
Inst. Experimental Pharmacy, Khar'kov, -1939-41-.

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Toxicity, cumulation, and elimination of dugesine were  
ture in experimental hypo- and hyperactivity of the pan-  
creas. G. V. Tushbar and V. I. Sip (II Khar'kov Med.  
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Toxicity determined in cat by the Hatchett-Magnus method,  
with standard (Soviet Pharmacopoeia VIII) digitalis tinc-  
ture (I) in physical, at room temperature 1 cc./min.,  
av. time 60 min., showed M.L.D. (in cc./kg.) as follows:  
normal cats, 1.33-1.6; av. 1.42; pancreatectomized  
cats, 1.4-1.62, av. 1.5; 3 min. after subcutaneous in-  
jection of insulin (II) (1 unit/kg.), 1.60; after 2 injections  
of II (each 2 units/kg.), 1.4-1.56, av. 1.64; activity de-  
crease after pancreatectomy, 6%; after heavy dosage  
with II, 17%. The M.L.D. as measured by the Bromberg-  
Welch method (C.A. 30, 1658) (single intravenous dose)  
is smaller than by perfusion. Qual. observations show that  
II also diminishes the toxicity of I to frogs. Tests of cum-  
ulation and elimination were made with cats 1, 3, 5, 7  
days after giving 50% of the M.L.D. of I. Elimination was  
faster, and cumulation was less, after either pancre-  
tomy or dosage with II than in normal cats. The effect  
is greater with hypo- than with hyperactivity of the pan-  
creas.

## -Chirurgie Pharmacologie

## **1.1.1.1.1. MEDICAL LITERATURE CLASSIFICATION**

EDWARD BOMAR

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